FIGURE 1

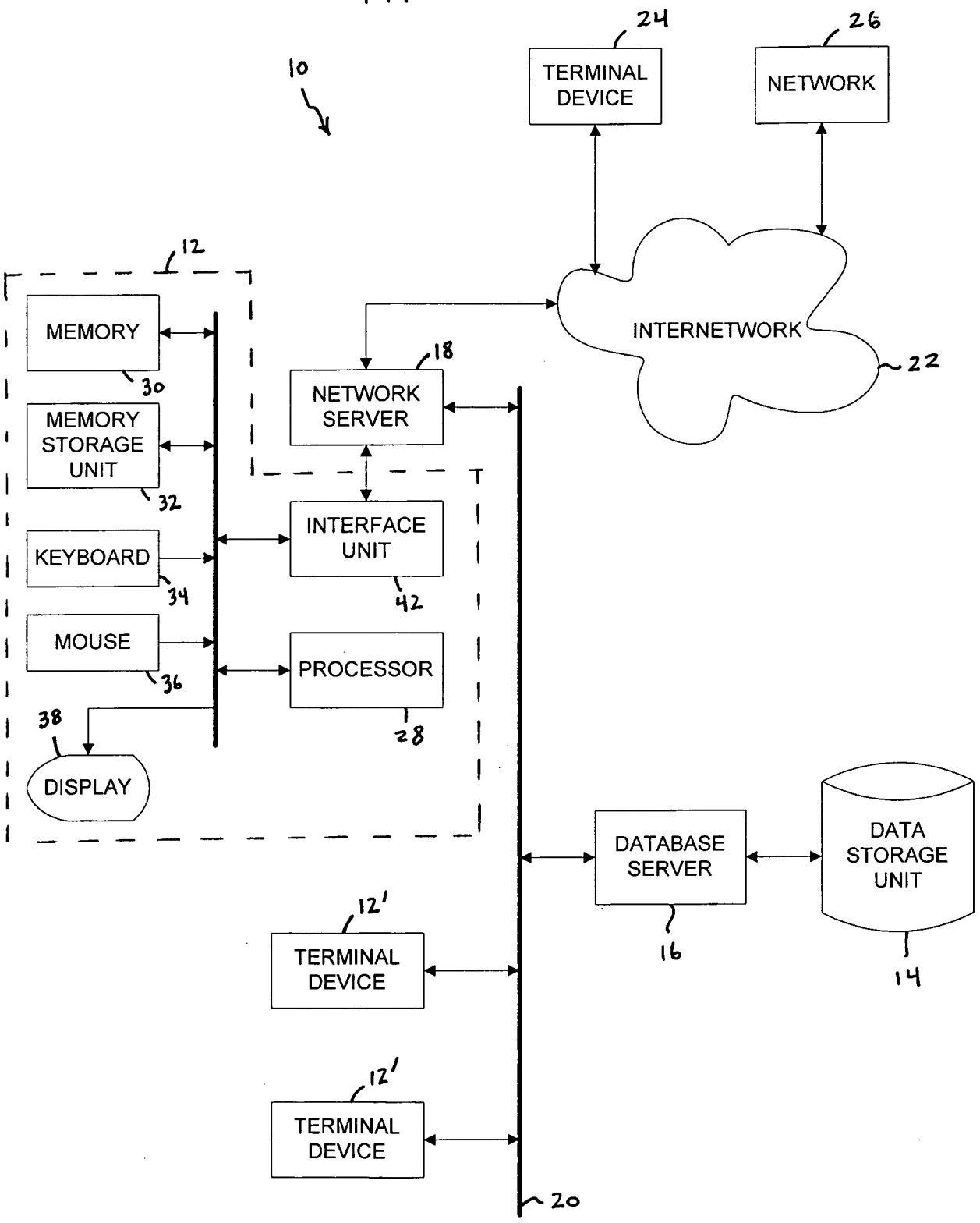
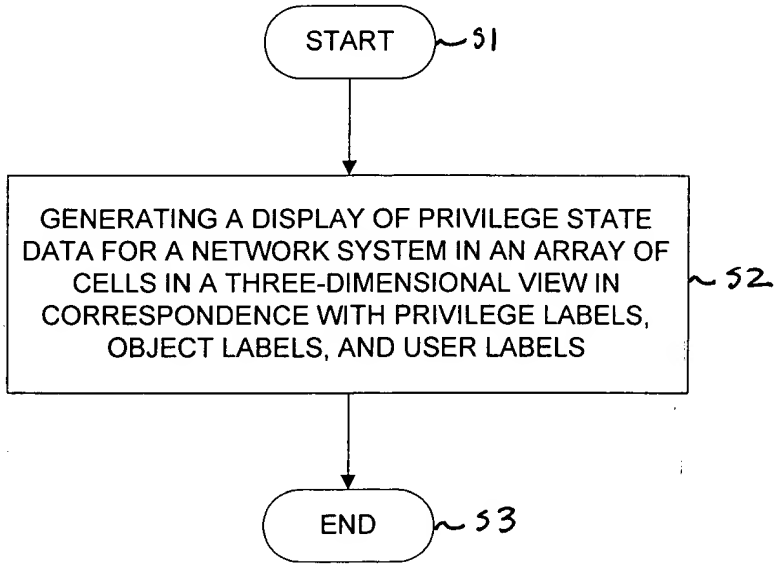

10
24
TERMINAL DEVICE
26
NETWORK
12
MEMORY
30
MEMORY STORAGE UNIT
32
KEYBOARD
34
MOUSE
36
38
DISPLAY
18
NETWORK SERVER
INTERFACE UNIT
42
PROCESSOR
28
INTERNETWORK
22
DATABASE SERVER
16
DATA STORAGE UNIT
14
12'
TERMINAL DEVICE
12'
TERMINAL DEVICE
20

FIGURE 2


START
51
GENERATING A DISPLAY OF PRIVILEGE STATE DATA FOR A NETWORK SYSTEM IN AN ARRAY OF CELLS IN A THREE-DIMENSIONAL VIEW IN CORRESPONDENCE WITH PRIVILEGE LABELS, OBJECT LABELS, AND USER LABELS
52
END
53

08620 PCT/US

FIGURE 3

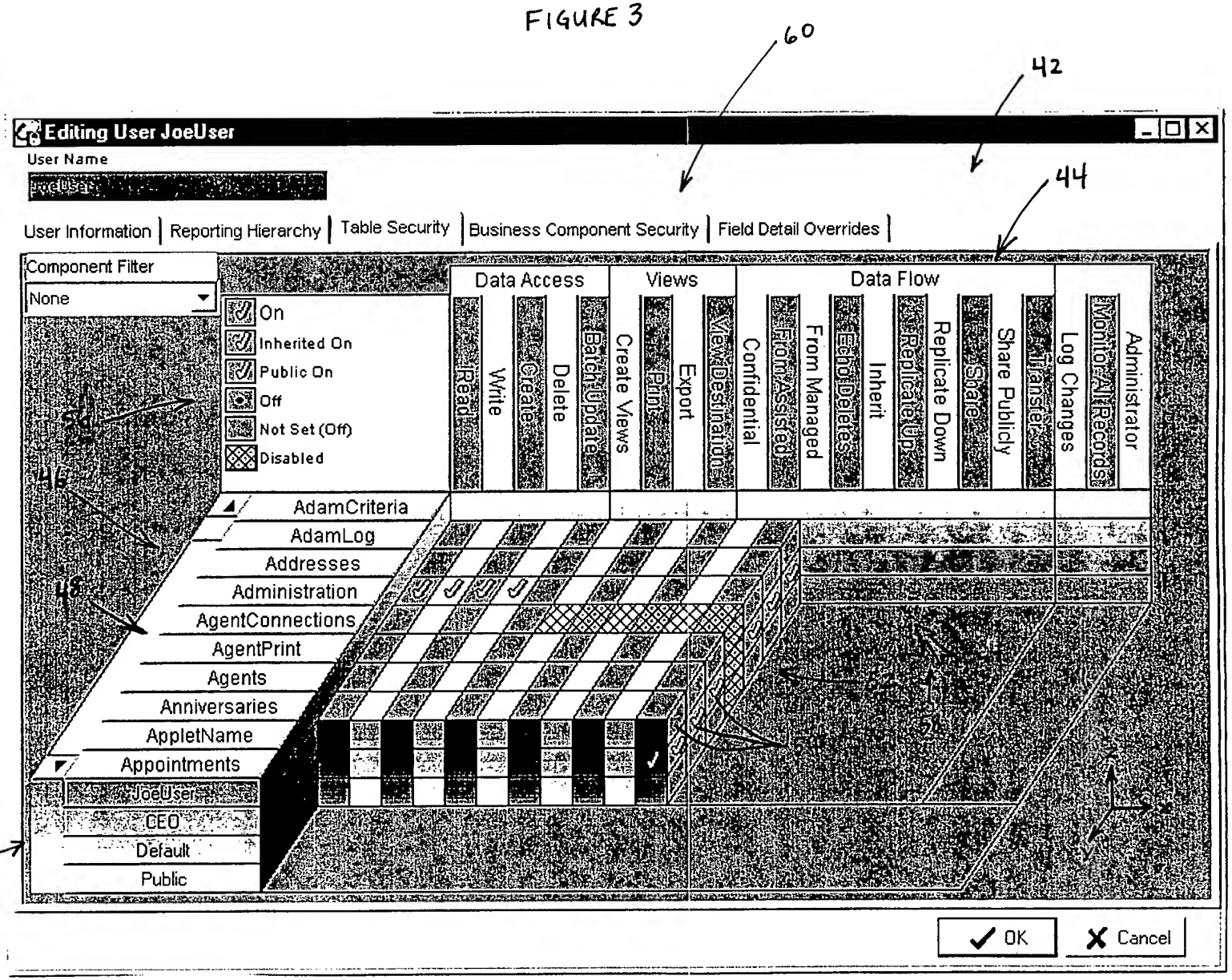


FIGURE 4

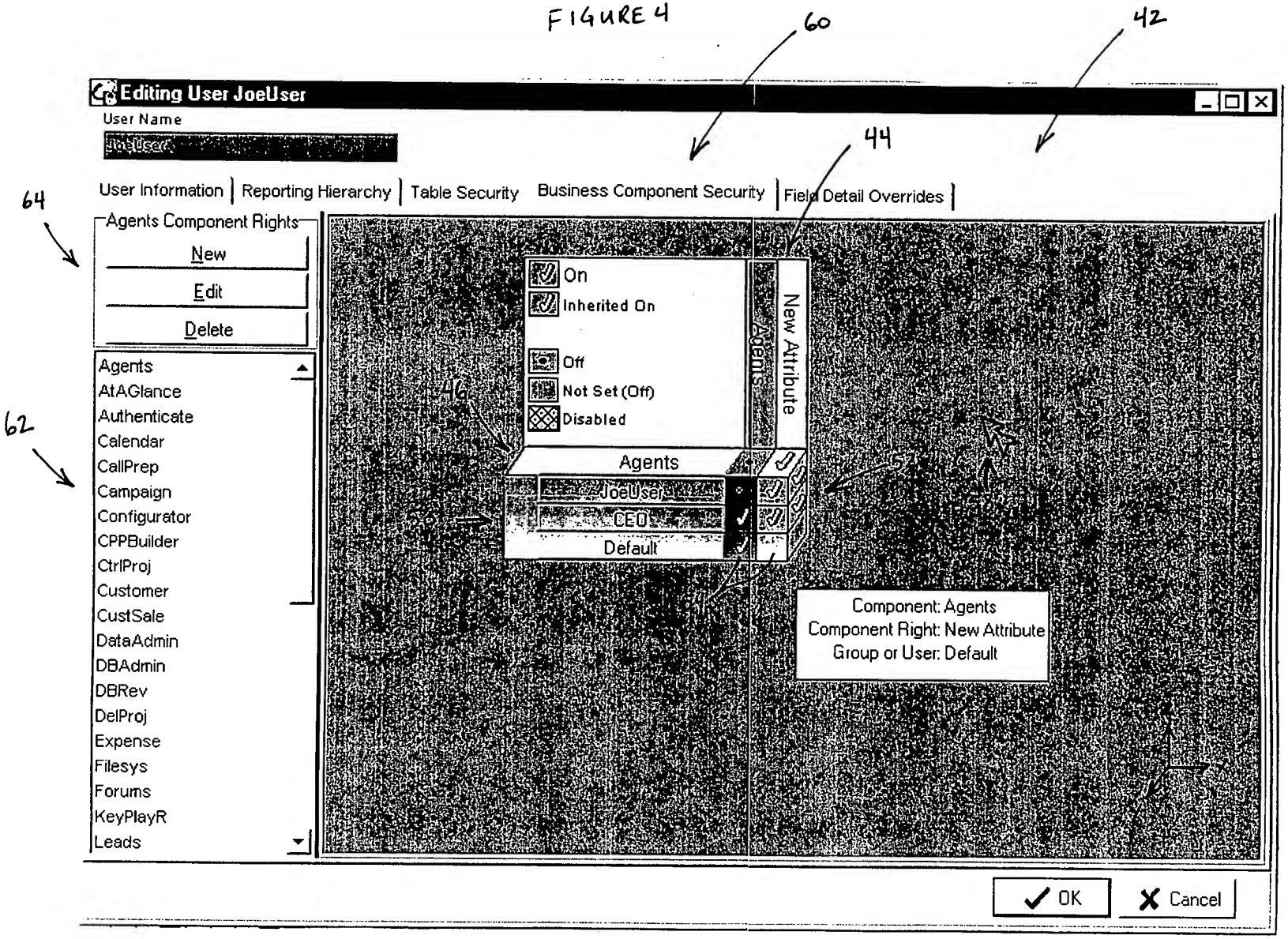

60
42
44
64
62
46
57
Editing User JoeUser
User Name
JoeUser
User Information
Reporting Hierarchy
Table Security
Business Component Security
Field Detail Overrides
Agents Component Rights
New
Edit
Delete
Agents
AtAGlance
Authenticate
Calendar
CallPrep
Campaign
Configurator
CPPBuilder
CtrlProj
Customer
CustSale
DataAdmin
DBAdmin
DBRev
DelProj
Expense
Filesys
Forums
KeyPlayR
Leads
On
Inherited On
Off
Not Set (Off)
Disabled
Agents
New Attribute
JoeUser
CEO
Default
Component: Agents
Component Right: New Attribute
Group or User: Default
OK
Cancel

FIGURE 5

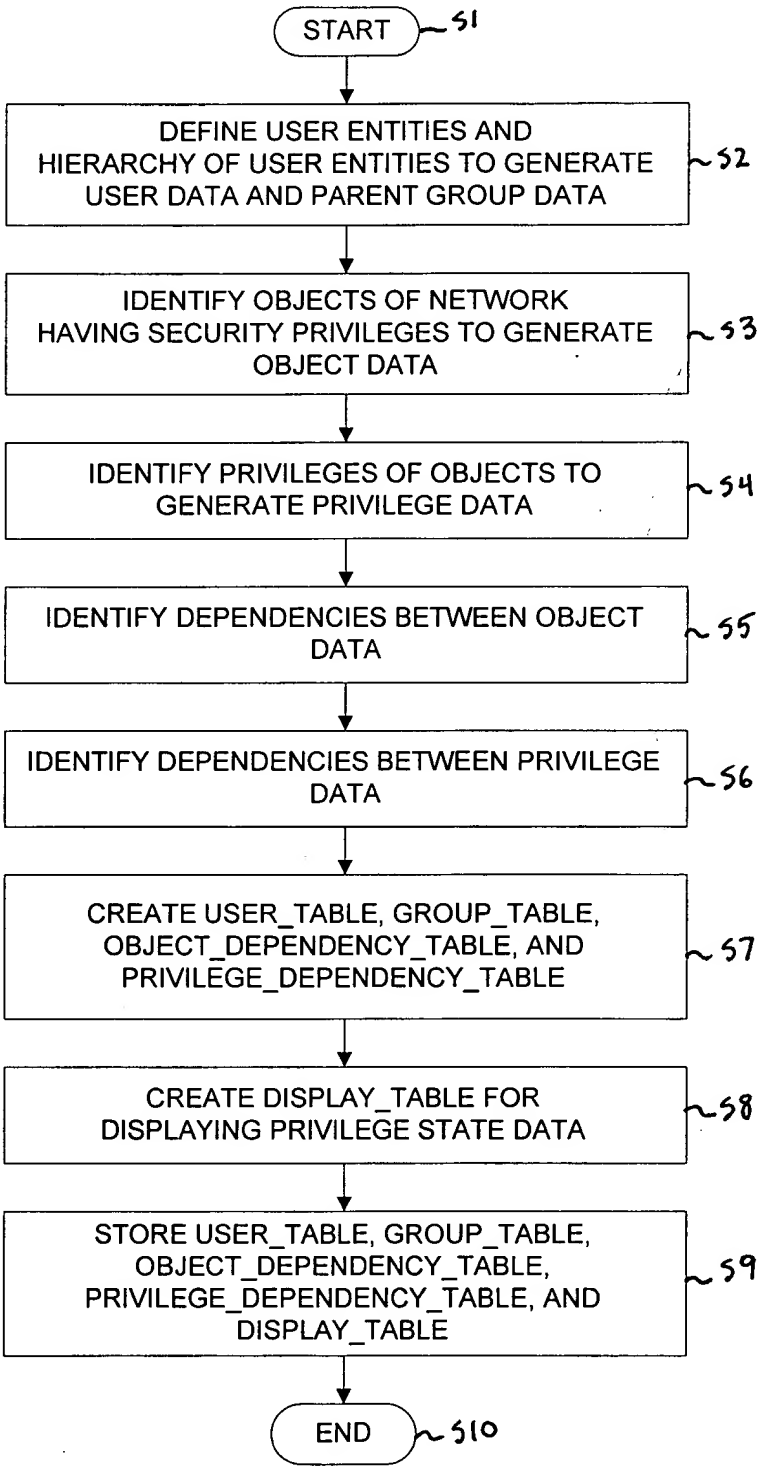

START
51
DEFINE USER ENTITIES AND HIERARCHY OF USER ENTITIES TO GENERATE USER DATA AND PARENT GROUP DATA
52
IDENTIFY OBJECTS OF NETWORK HAVING SECURITY PRIVILEGES TO GENERATE OBJECT DATA
53
IDENTIFY PRIVILEGES OF OBJECTS TO GENERATE PRIVILEGE DATA
54
IDENTIFY DEPENDENCIES BETWEEN OBJECT DATA
55
IDENTIFY DEPENDENCIES BETWEEN PRIVILEGE DATA
56
CREATE USER_TABLE, GROUP_TABLE, OBJECT_DEPENDENCY_TABLE, AND PRIVILEGE_DEPENDENCY_TABLE
57
CREATE DISPLAY_TABLE FOR DISPLAYING PRIVILEGE STATE DATA
58
STORE USER_TABLE, GROUP_TABLE, OBJECT_DEPENDENCY_TABLE, PRIVILEGE_DEPENDENCY_TABLE, AND DISPLAY_TABLE
59
END
510

FIGURE 6A

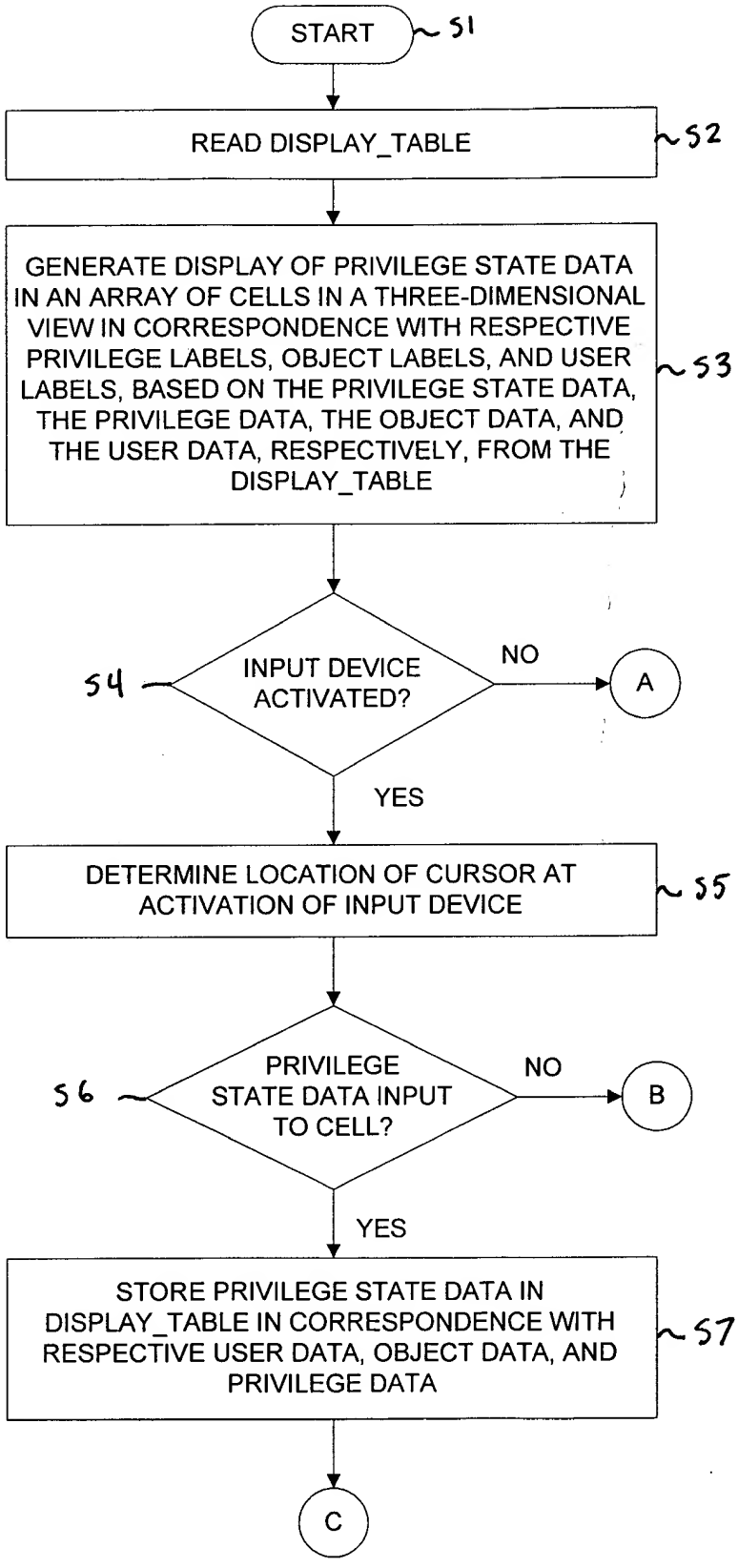

START
51
READ DISPLAY_TABLE
52
GENERATE DISPLAY OF PRIVILEGE STATE DATA IN AN ARRAY OF CELLS IN A THREE-DIMENSIONAL VIEW IN CORRESPONDENCE WITH RESPECTIVE PRIVILEGE LABELS, OBJECT LABELS, AND USER LABELS, BASED ON THE PRIVILEGE STATE DATA, THE PRIVILEGE DATA, THE OBJECT DATA, AND THE USER DATA, RESPECTIVELY, FROM THE DISPLAY_TABLE
53
54
INPUT DEVICE ACTIVATED?
NO
A
YES
DETERMINE LOCATION OF CURSOR AT ACTIVATION OF INPUT DEVICE
55
56
PRIVILEGE STATE DATA INPUT TO CELL?
NO
B
YES
STORE PRIVILEGE STATE DATA IN DISPLAY_TABLE IN CORRESPONDENCE WITH RESPECTIVE USER DATA, OBJECT DATA, AND PRIVILEGE DATA
57
C

FIGURE 6B

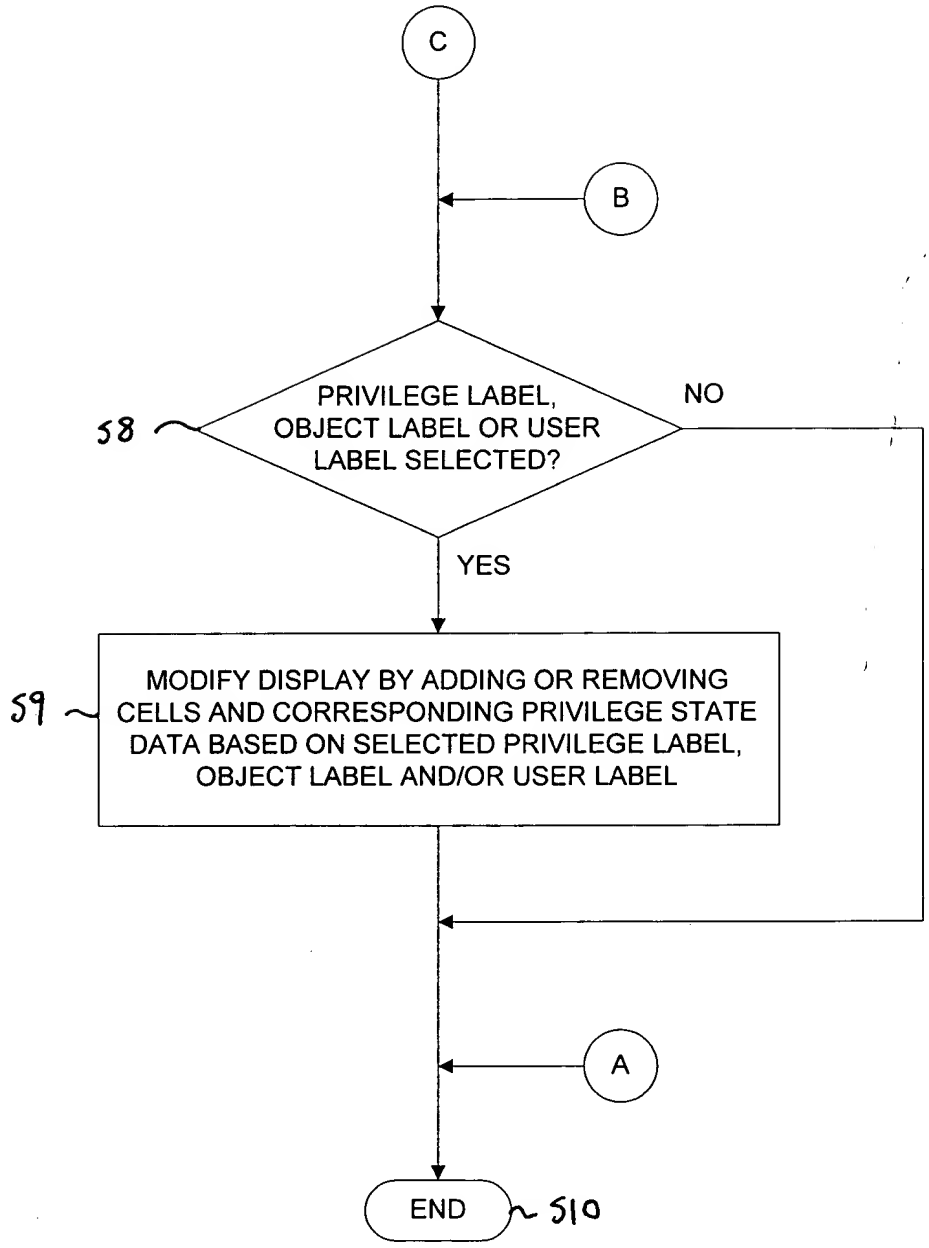

C
B
PRIVILEGE LABEL, OBJECT LABEL OR USER LABEL SELECTED?
58
NO
YES
MODIFY DISPLAY BY ADDING OR REMOVING CELLS AND CORRESPONDING PRIVILEGE STATE DATA BASED ON SELECTED PRIVILEGE LABEL, OBJECT LABEL AND/OR USER LABEL
59
A
END
510

FIGURE 7

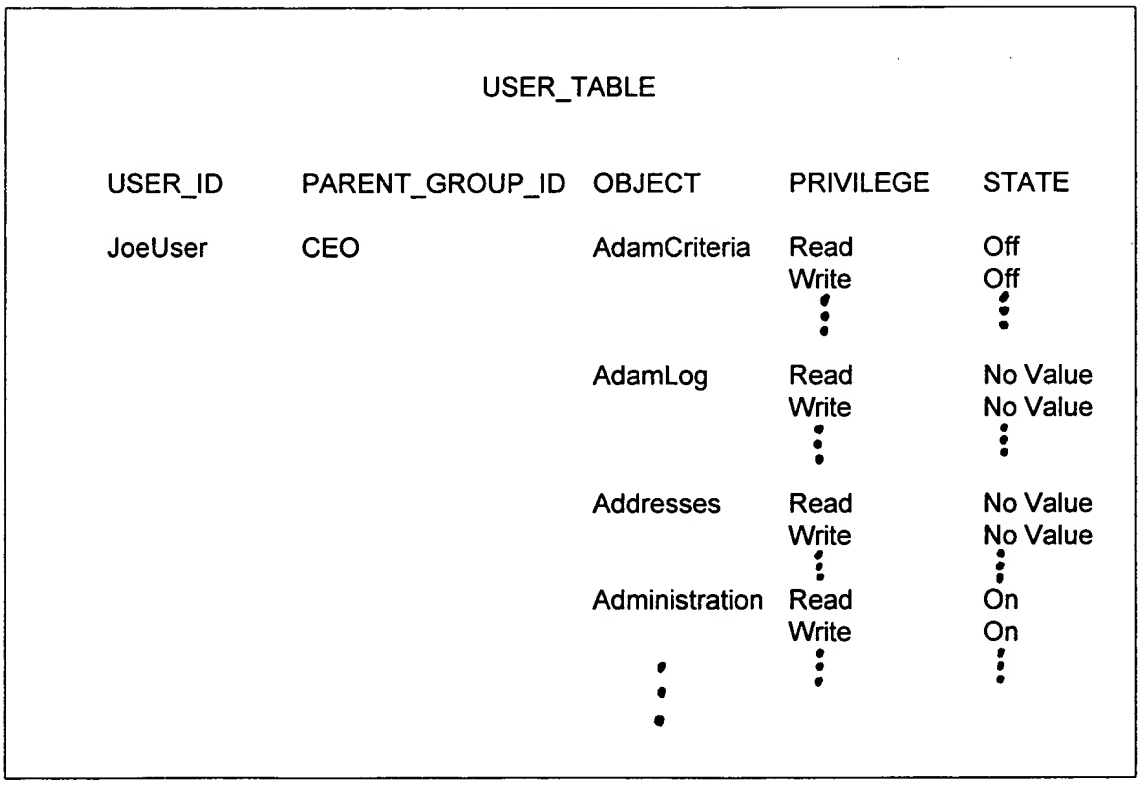

USER_TABLE
USER_ID
PARENT_GROUP_ID
OBJECT
PRIVILEGE
STATE
JoeUser
CEO
AdamCriteria
Read
Off
Write
Off
AdamLog
Read
No Value
Write
No Value
Addresses
Read
No Value
Write
No Value
Administration
Read
On
Write
On

FIGURE 8

GROUP_TABLE

GROUP_ID	PARENT_GROUP_ID	OBJECT	PRIVILEGE	STATE
Public	None	AdamCriteria	Read	No Value
			Write	No Value
			⋮	⋮
		AdamLog	Read	On
			Write	On
			⋮	⋮
		Addresses	Read	No Value
			Write	No Value
			⋮	⋮
		Administration	Read	No Value
		⋮	Write	No Value
			⋮	⋮
Default	None	AdamCriteria	Read	No Value
			Write	No Value
			⋮	⋮
		AdamLog	Read	On
			Write	On
			⋮	⋮
		Addresses	Read	No Value
			Write	No Value
			⋮	⋮
		Administration	Read	No Value
		⋮	Write	No Value
			⋮	⋮
CEO	None	AdamCriteria	Read	No Value
			Write	No Value
			⋮	⋮
		AdamLog	Read	No Value
			Write	No Value
			⋮	⋮
		Addresses	Read	On
			Write	On
			⋮	⋮
		Administration	Read	On
		⋮	Write	On
			⋮	⋮

FIGURE 9

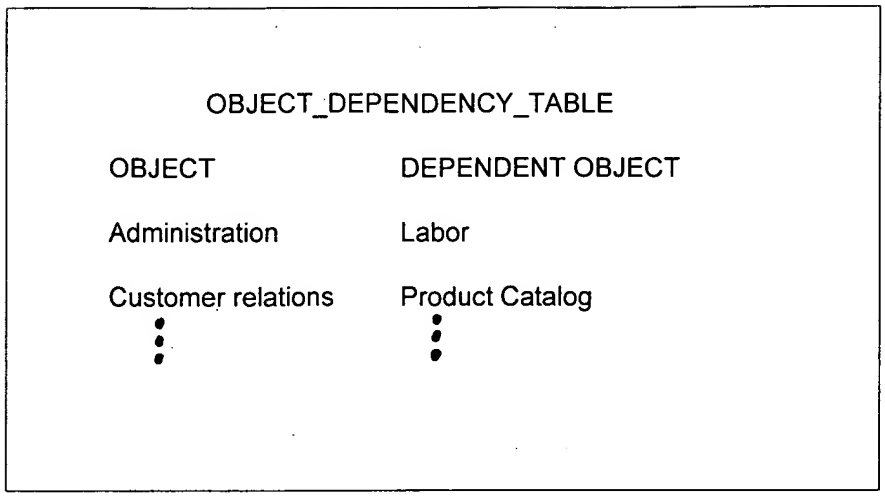

OBJECT_DEPENDENCY_TABLE
OBJECT
DEPENDENT OBJECT
Administration
Labor
Customer relations
Product Catalog

FIGURE 10

PRIVILEGE_DEPENDENCY_TABLE

PRIVILEGE	DEPENDENT PRIVILEGE
Read	Write, Create, Delete
Write	Read, Create, Delete
Create	Read, Write, Delete
Delete	Read, Write, Create
⋮	⋮

FIGURE 11

DISPLAY_TABLE

USER/GROUP_ID	OBJECT	PRIVILEGE	STATE
Public	AdamCriteria	Read	Not Set (Off)
		Write	Not Set (Off)
	AdamLog	Read	Public On
		Write	Public On
	Addresses	Read	Not Set (Off)
		Write	Not Set (Off)
	Administration	Read	Not Set (Off)
		Write	Not Set (Off)
Default	AdamCriteria	Read	Not Set(Off)
		Write	Not Set(Off)
	AdamLog	Read	On
		Write	On
	Addresses	Read	Not Set (Off)
		Write	Not Set (Off)
	Administration	Read	Not Set (Off)
		Write	Not Set (Off)
CEO	AdamCriteria	Read	Not Set (Off)
		Write	Not Set (Off)
	AdamLog	Read	Public On
		Write	Public On
	Addresses	Read	On
		Write	On
	Administration	Read	On
		Write	On
JoeUser	AdamCriteria	Read	Off
		Write	Off
	AdamLog	Read	Public On
		Write	Public On
	Addresses	Read	Inherited On
		Write	Inherited On
	Administration	Read	On
		Write	On

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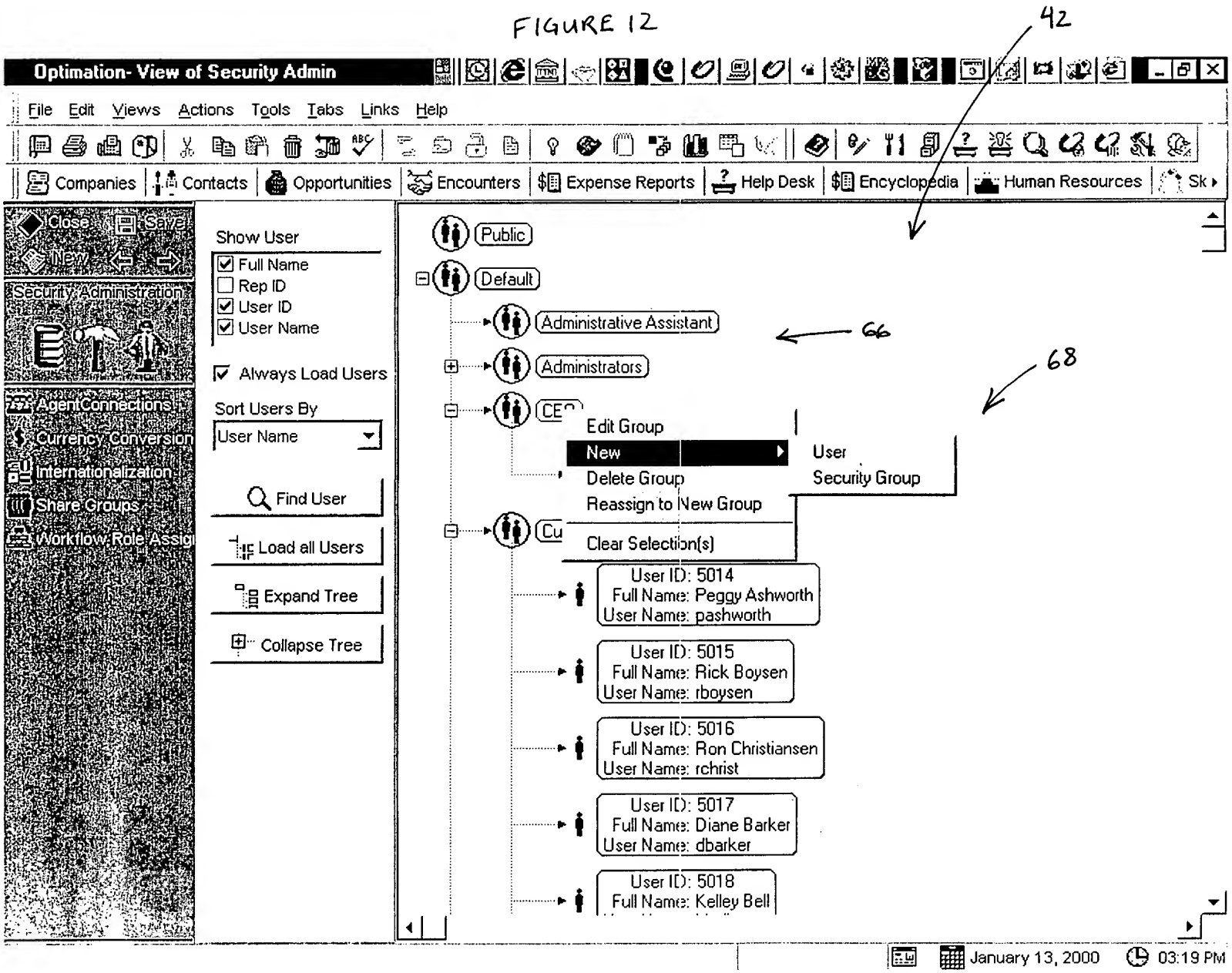
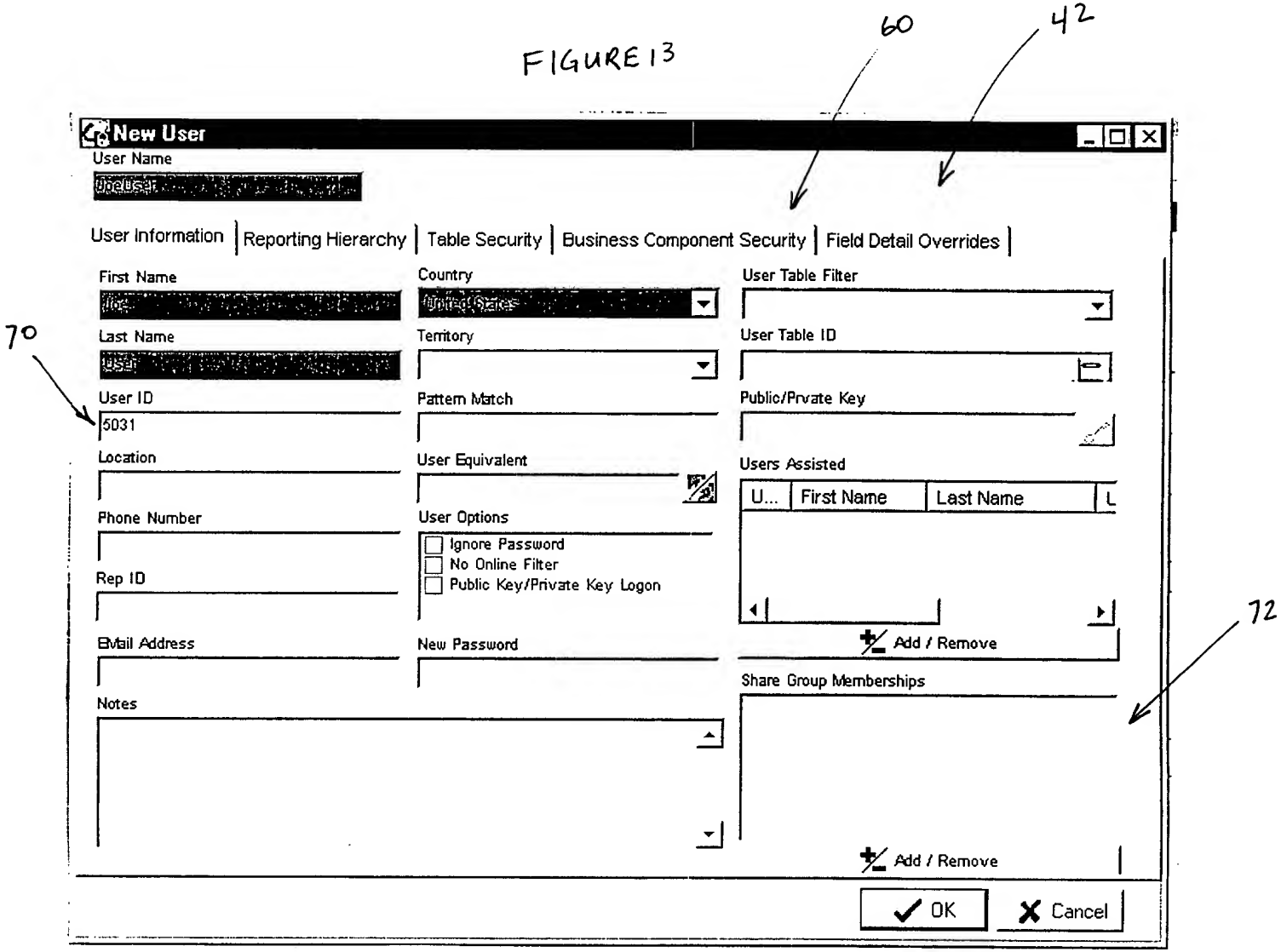
FIGURE 12



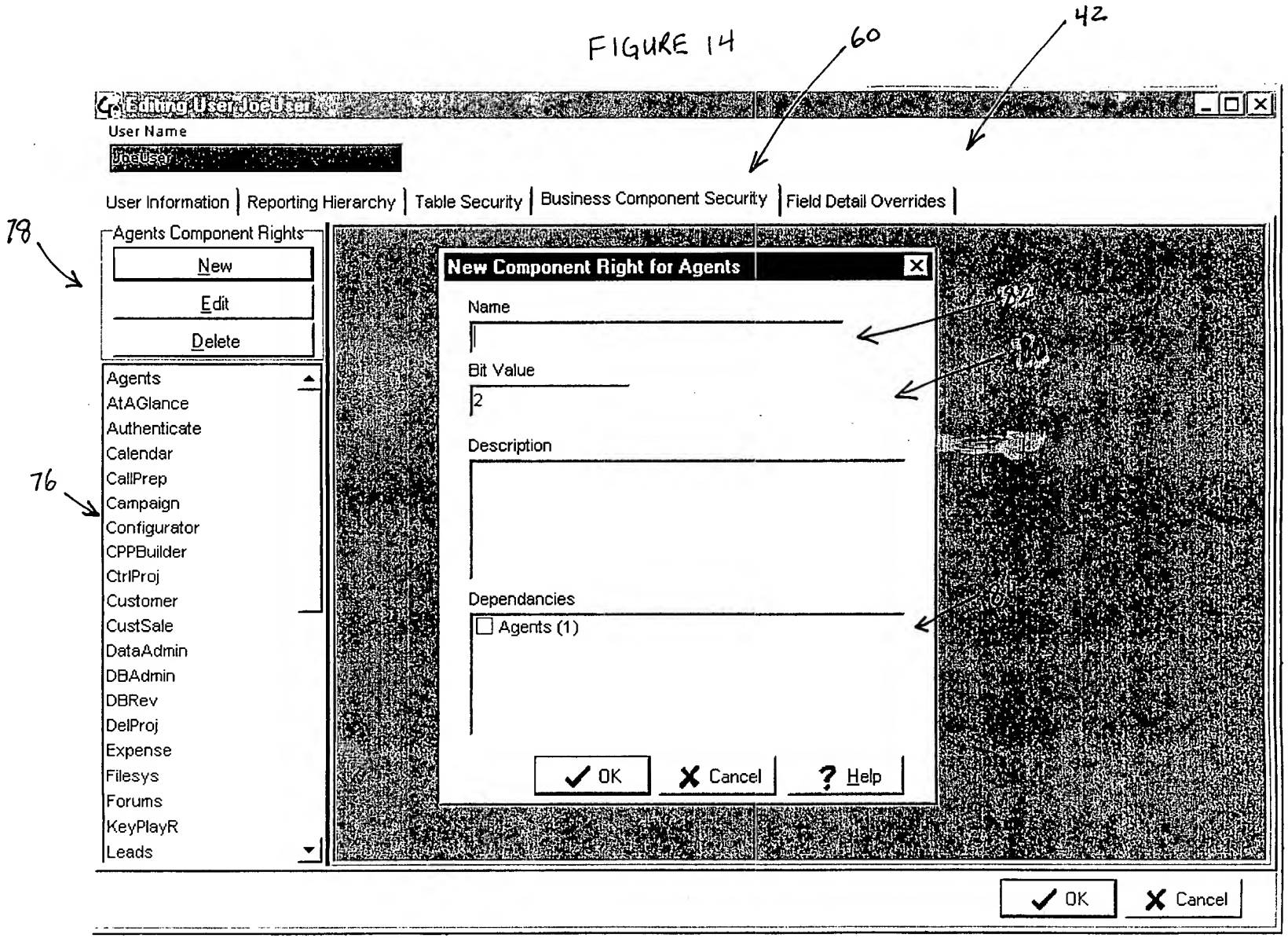
0067207 FEB1960

FIGURE 13



0087207 T26T960

FIGURE 14



0061201 1E81960

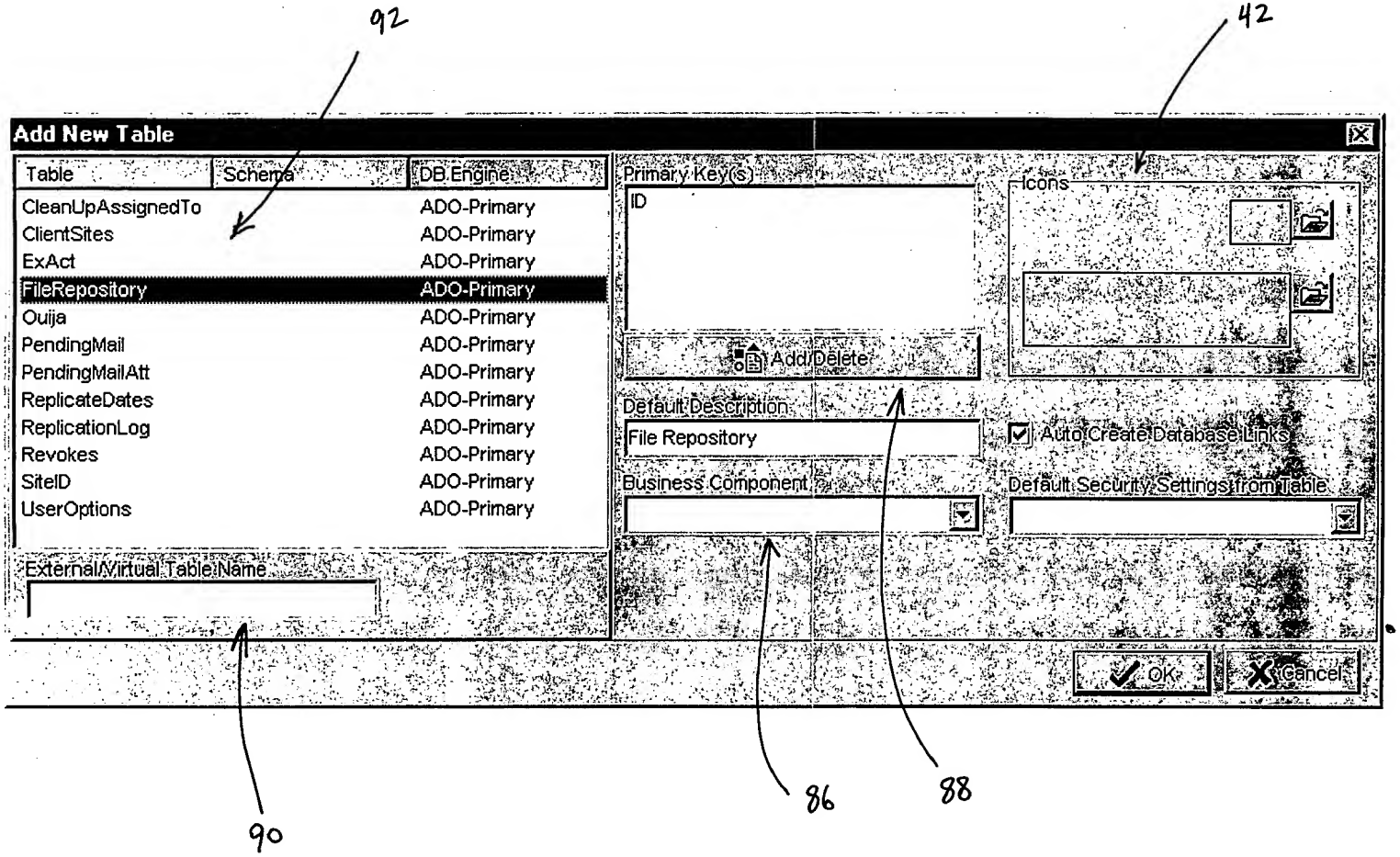



FIGURE 15